

## ABSTRACT OF THE DISCLOSURE

[00128] Thioester and selenoester generators, thioester and selenoester compounds, and related methods for their production are provided. The subject thioester and selenoester generators include an amino acid synthon having an N-terminal group joined to a C-terminal group through an organic backbone comprising one or more carbons. The organic backbone contains a carbon having a side chain anchored to a support through a nucleophile-stable linker and is lacking reactive functional groups. The organic backbone may include a target molecule of interest, such as an amino acid, peptide, polypeptide or other organic compound of interest, and/or the N- and/or C-termini can be elaborated using a variety of synthesis approaches to provide a target molecule of interest. The compounds and methods find a wide variety of uses, including use in thioester- or selenoester-based chemical ligation techniques.

F:\DOCUMENT\GRFN\041\appln GRFN-041.doc